IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A sulfolobus expression vector comprising:
   (a) a sulfolobus origin of replication;
   (b) ~~the genes encoding the~~ coding sequences for structural proteins, ~~and~~ a coding sequence for the site-specific integrase and a packaging signal from one of SSV1, SSV2 or pSSVx, wherein each of the structural protein coding sequences and the site-specific integrase coding sequence are operably ~~operatively~~ linked to expression control sequences and [[a]] the packaging signal;
   (c) one or more selectable marker gene(s) encoding an essential protein of sulfolobus, operatively linked to sulfolobus expression control sequences; and
   (d) a sulfolobus promoter followed 3' by a restriction enzyme recognition site or a multiple cloning site for insertion of a gene of interest and the vector further comprises an optional ~~optionally a~~ 3' regulatory element.
2. (Currently Amended) The expression vector of claim 1, wherein the coding sequence is an origin of replication from one of ~~(a) is selected from the group consisting of~~ SSV1, SSV2, pSSVx and pRN plasmids.
3. (Original) The expression vector of claim 1 or 2, wherein the vector contains the complete genome of SSV1, thereby providing said origin of replication, said packaging signal and said genes encoding the structural proteins and the integrase of SSV1.
4. (Original) The expression vector of claim 3, wherein the essential gene is a gene of the de novo nucleotide anabolism, a gene of the aminoacid biosynthesis or a gene conferring antibiotic resistance.
5. (Currently Amended) The expression vector of anyone of claim 1 [[to 4]], wherein the vector contains orotidine-5'-monophosphatase pyrophosphorlyase and orotidine-5'-monophosphatase decarboxylase as selectable marker genes.
6. (Currently Amended) The expression vector of ~~any one of claims~~ claim 1 [[to 5]], wherein the vector contains 3' to the translation initiation site of the

promoter for the expression of the gene of interest additional nucleic acid sequences so that the expressed protein has an N-terminal extension.

7. (Original) The expression vector of claim 6, wherein the N-terminal extension is

   (a) a signal sequence directing the secretion of the expressed protein;

   (b) a tag for purification; or

   (c) a tag for specific detection.

8. (Currently Amended) The expression vector of ~~any one of claims~~ ~~claim~~ 1 [[to 7]], wherein the promoter for the expression of the gene of interest is a constitutive promoter selected from the group consisting of genes involved in central metabolisms and information processing including the promoters of the ribosomal subunits 16S, 23S rRNA or the promoters of polymerases, transcription, replication or translation factors.

9. (Currently Amended) The expression vector of ~~any one of claims~~ claim 1 [[to 8]], wherein the promoter for the expression of the gene of interest is an inducible promoter.

10. (Original) The expression vector of claim 9, wherein the inducible promoter is selected from the group consisting of (a) heat inducible promoters Tf55alpha, TF55beta, TF55gamma, hsp20, htrA, (b) cold inducible promoters TF55gamma and (c) promoters inducible by a carbon source.

11. (Currently Amended) The expression vector of ~~any one of claims~~ claim 1 [[to 10]], wherein the vector contains an additional expression cassette for a reporter protein, selected from the group consisting of β-galactosidase, luciferase, green fluorescent protein and variants thereof.

12. (Currently Amended) A shuttle vector comprising the sequences of the expression vector of ~~any one of claims~~ claim 1 [[to 12]] and additional sequences for propagation and selection in E. coli, wherein the additional sequences comprise

   (a) an E. coli ori of replication; and

   (b) a marker for selection in E. coli.

13. (Original) The shuttle vector of claim 12, wherein the marker of selection is selected from the group consisting of ampicillin, kanamycin, chloramphenicol, tetracyclin, hygromycin, neomycin or methotrexate.

14. (Currently Amended) A host cell transformed with the expression vector of ~~any one of claims~~ claim 1 [[to 13]], wherein the host cell is E. coli or sulfolobus.

15. (Original) The host cell of claim 14, wherein the transformed expression vector provides a gene encoding an essential protein.

16. (Original) The host cell of claim 14, wherein the host is deficient in expressing a fully functional version of said essential gene provided by the expression vector.

17. (Currently Amended) A method of producing a polypeptide comprising culturing the host cell of ~~any one of claims~~ claim 14 [[to 17]] under suitable conditions and isolating said (poly)peptide from the cells or the cell culture supernatant.

18. (Currently Amended) A method of generating infectious recombinant subviral particles composed of the structural proteins of SSVl and/or SSV2, having packaged the DNA of the expression vector of ~~any one of claims~~ claim 1 [[to 13]], wherein the method has the steps of

    (a) introducing the DNA of the expression vector and the DNA of SSVl or SSV2 into a host cells;

    (b) incubating the cells for time and under conditions sufficient to allow replication of SSV1 or SSV2 and spreading in the cell culture;

    (c) harvesting the cell culture supernatant or the host cells.

19. (Currently Amended) [[Use of]] The method of using the vector of ~~any one of claims~~ claim 1 [[to 13]] for gene silencing by expression of RNAi or antisense RNA, wherein the vector contains a Sulfolobus promoter for transcription of a gene or parts of a gene either in antisense or sense orientation or in both orientations.

20. (Currently Amended) A kit comprising

    (a) the vector of ~~any one of claims~~ claim 1 [[to 13]].

    (b) the host cell of ~~any one of~~ claim 14 [[to 16]], and/or

    (c) a host cell deficient in the expression of the essential protein of the vector of (a).

    in one or more containers.